

We claim:

1. A thermal separating process between at least one gaseous and at least one liquid stream, of which at least one comprises (meth)acrylic monomers, in a separating column containing separating internals, at least some of the separating internals being a sequence of sieve trays, which comprises selecting the streams in such a way that at least some of the sieve trays are operated above an entrainment fraction of 10% by weight.
2. A thermal separating process as claimed in claim 1, wherein the separating internals contained in the separating column are exclusively mass transfer trays.
3. A thermal separating process as claimed in claim 1 or 2, wherein the separating internals contained in the separating column are, from bottom to top, dual-flow trays, hydraulically sealed crossflow trays and valve trays.
4. A thermal separating process as claimed in claim 1 or 2, wherein the separating internals contained in the separating column are exclusively dual-flow trays.
5. A thermal separating process as claimed in any of claims 1 to 4, which is a process for fractional condensation, for rectification or for absorption.
6. A thermal separating process as claimed in any of claims 1 to 5, wherein at least some of the sieve trays are operated at an entrainment fraction of from 11 to 70% by weight.
7. A thermal separating process as claimed in any of claims 1 to 6, wherein at least some of the sieve trays are operated at an entrainment fraction of from 11 to 30% by weight.
8. A thermal separating process as claimed in any of claims 1 to 6, wherein all of the sieve trays are operated at an entrainment fraction of from 11 to 70% by weight.
9. A thermal separating process as claimed in any of claims 1 to 7, wherein all of the sieve trays are operated at an entrainment fraction of from 11 to 30% by weight.
10. A thermal separating process as claimed in any of claims 1 to 9, wherein the liquid stream comprises polymerization inhibitors.

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11. A thermal separating process as claimed in any of claims 1 to 10, which is a process for fractionally condensing the product gas mixture of a catalytic gas phase oxidation of C3 precursor compounds to acrylic acid for preparing acrylic acid.